

PTO/SB/17 (01-03)

Approved for use through 04/30/2003. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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FREE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 0.00

Complete if Known

Application Number	10/718,986
Filing Date	November 21, 2003
First Named Inventor	YU, Mang
Examiner Name	To be determined
Art Unit	1648
Attorney Docket No.	NB-00101.P.1-US

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit Account Number
Deposit Account Name

501321

David R. Preston

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 750	2001 375	Utility filing fee	
1002 330	2002 165	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	
1202 18	2202 9	Claims in excess of 20	
1201 84	2201 42	Independent claims in excess of 3	
1203 280	2203 140	Multiple dependent claim, if not paid	
1204 84	2204 42	** Reissue independent claims over original patent	
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)			(\$) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1051 130	2051 65	Surcharge - late filing fee or oath
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet
1053 130	1053 130	Non-English specification
1812 2,520	1812 2,520	For filing a request for ex parte reexamination
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action
1251 110	2251 55	Extension for reply within first month
1252 410	2252 205	Extension for reply within second month
1253 930	2253 465	Extension for reply within third month
1254 1,450	2254 725	Extension for reply within fourth month
1255 1,970	2255 985	Extension for reply within fifth month
1401 320	2401 160	Notice of Appeal
1402 320	2402 160	Filing a brief in support of an appeal
1403 280	2403 140	Request for oral hearing
1451 1,510	1451 1,510	Petition to institute a public use proceeding
1452 110	2452 55	Petition to revive - unavoidable
1453 1,300	2453 650	Petition to revive - unintentional
1501 1,300	2501 650	Utility issue fee (or reissue)
1502 470	2502 235	Design issue fee
1503 630	2503 315	Plant issue fee
1460 130	1460 130	Petitions to the Commissioner
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)
1806 180	1806 180	Submission of Information Disclosure Stmt
8021 40	8021 40	Recording each patent assignment per property (times number of properties)
1809 750	2809 375	Filing a submission after final rejection (37 CFR 1.129(a))
1810 750	2810 375	For each additional invention to be examined (37 CFR 1.129(b))
1801 750	2801 375	Request for Continued Examination (RCE)
1802 900	1802 900	Request for expedited examination of a design application

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0.00**SUBMITTED BY**

Name (Print/Type)

David R. Preston

Registration No.
(Attorney/Agent)

38,710

(Complete if applicable)

Telephone 858-724-0375

Signature

Date

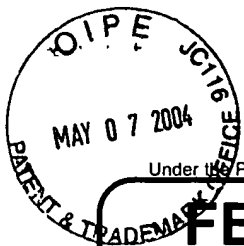
May 4, 2004

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METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
Account
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May 4, 2004

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

11

Application Number

10/718,986

Filing Date

November 21, 2003

First Named Inventor

YU, Mang

Art Unit

1648

Examiner Name

To be determined

Attorney Docket Number

NB-00101.P.1-US

ENCLOSURES (Check all that apply)



Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)



Response to Missing Parts/
Incomplete Application



Response to Missing Parts
under 37 CFR 1.52 or 1.53



Drawing(s)



Licensing-related Papers



Petition



Petition to Convert to a
Provisional Application



Power of Attorney, Revocation



Change of Correspondence Address



Terminal Disclaimer



Request for Refund



CD, Number of CD(s) _____



After Allowance communication
to Technology Center (TC)



Appeal Communication to Board
of Appeals and Interferences



Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)



Proprietary Information



Status Letter



Other Enclosure(s) (please
Identify below):

Remarks

1. Form 1449;
2. Two (2) volumes of references cited on Form 1449;
3. Postcard

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm
or
Individual name

David R. Preston
Reg. No. 38,710

Signature

Date

May 4, 2004

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name

Raymond Wagenknecht

Signature

Raymond Wagenknecht

Date

5/4/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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TRANSMITTAL FORM

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Application Number	10/718,986
Filing Date	November 21, 2003
First Named Inventor	YU, Mang
Art Unit	1648
Examiner Name	To be determined
Attorney Docket Number	NB-00101.P.1-US
Total Number of Pages in This Submission	11

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks 1. Form 1449; 2. Two (2) volumes of references cited on Form 1449; 3. Postcard		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	David R Preston Reg. No. 38,710
Signature	
Date	May 4, 2004

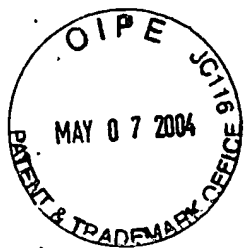
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Typed or printed name	Raymond Wagenknecht		
Signature		Date	5/4/2004

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Patent

Docket Number: NB-00101.P.1-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)	
)	
YU, Mang)	Examiner: To Be Determined
)	
Application No.: 10/718,986)	Art Unit: 1648
)	
Filed: November 21, 2003)	
)	
For: BROAD SPECTRUM ANTI-VIRAL)	
THERAPEUTICS AND)	
PROPHYLAXIS)	
)	

Commissioner for Patents
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicant respectfully submits this Information Disclosure Statement before the mailing of a First Office Action on the merits under 37 C.F.R. § 1.97(a)(3). Accordingly, no fee under 37 C.F.R. § 1.17(p) is deemed necessary.


Applicant submits two (2) volumes of references listed on the attached Form 1449.

Information Disclosure Statement
NB-00101.P.1-US
M. Yu

Please apply any charges not covered, or any credits, to Deposit Account number 501321 in the name of David R. Preston & Associates, having Customer Number 24232.

Respectfully submitted,

Date: May 4, 2004


David R. Preston
Reg. No. 38,710

David R. Preston & Associates, APC
12625 High Bluff Drive
Suite 205
San Diego, CA 92130
phone: 858.724.0375
facsimile: 858.724.0384



**INFORMATION DISCLOSURE
STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Docket Number:
NB-00101.P.1-US

Application Number:
10/718,986

Applicant:
YU, Mang

Filing Date:
November 11, 2003

Group Art Unit:
1648

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	P1	3,439,089	04/1969	Cherkas			
	P2						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
							YES	NO
	F1							

Examiner Signature		Date Considered	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D1	Achyuthan, KE and Achyuthan AM. 2001. Comparative enzymology, biochemistry and pathophysiology of human exo-a-sialidases (neuraminidases). Comparative Biochem & Physiol part B 129:29-64
	D2	Air, GM and Laver, WG. 1995. Red cells bound to influenza virus N9 neuraminidase are not released by the N9 neuraminidase activity. Virology 211:278-284
	D3	Auerswald EA, Horlein D, Reinhardt G, Schroder W and Schnabel E. 1988. Expression, isolation and characterization of recombinant [Arg15, Glu52] Aprotinin. Biol Chem Hoppe-Seyler Vol 369, Suppl., pp27-35
	D4	Barbey-Morel CL, Oeltmann TN, Edwards KM and Wright PF. 1987. Role of respiratory tract proteases in infectivity of influenza A virus. J Infect Dis 155:667-672
	D5	Bessette PH, Aslund F, Beckwith J and Georgiou G. 1999. Efficient folding of proteins with multiple disulfide bonds in the Escherichia coli cytoplasm. Pro Natl Acad Sci USA 96:13703-13708
	D6	Callan RJ, Hartmann FA, West SE and Hinshaw VS. 1997. Cleavage of influenza A virus H1 hemagglutinin by swine respiratory bacterial proteases. J Virol 71:7579-7585
	D7	Connor, RJ, Kawaoka, Y, Webster, RG and Paulson JC. 1994. Receptor specificity in human, avian, and equine H2 and H3 influenza virus isolates. Virology 205:17-23
	D8	Copley, RR, Russell, RB and Ponting, CP. 2001. Sialidase-like Asp-boxes: sequence-similar structures within different protein folds. Prot Sci 10:285-292
	D9	Corfield, AP, Veh, RW, Wember, M, Michalski, JC and Schauer, R. 1981. The release of N-acetyl- and N-glycolloyl-neuraminic acid from soluble complex carbohydrates and erythrocytes by bacterial, viral and mammalian sialidases. Biochem J 197:293-299

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EXAMINER INITIALS		CITATION
	D10	Drzeniek, R. Substrate specificity of neuraminidases. 1973. Histochem J 5:271-290
	D11	Endo Y, Carroll KN, Ikizler MR and Wright PF. 1996. Growth of influenza virus in primary, differentiated epithelial cells derived from adenoids. J Virol 70:2055-2058
	D12	Fritz H and Wunderer G. 1983. Biochemistry and applications of aprotinin, the kallikrein inhibitor from bovine organs. Arzneimittel-Forsch 33:479-494
	D13	Fukudome, K., Yoshie, O. and Konno, T. 1989. Comparison of human, simian, and bovine rotaviruses for requirement of sialic acid in hemagglutination and cell adsorption. Virology 172:196-205
	D14	Garten W, Bosch FX, Linder D, Rott R and Klenk HD. 1981. Proteolytic activation of the influenza virus hemagglutinin: the structure of the cleavage site and the enzymes involved in cleavage. Virology 115:361-374
	D15	Goger, B, Halden, Y, Rek, A, Mosl, R, Pye, D, Gallagher, J and Kungl, AJ. 2002. Different affinities of glycosaminoglycan oligosaccharides for monomeric and dimeric interleukin-8: a model for chemokine regulation at inflammatory sites. Bichem 41:1640-1646
	D16	Gotoh B, Ogasawara T, Toyoda T, Inocencio N, Hamaguchi M and Nagai Y. 1990. An endoprotease homologous to the blood clotting factor X as a determinant of viral tropism in chick embryo. EMBO J 9:4189-4195
	D17	Gust, ID, Hampson, AW. and Lavanchy, D. 2001. Planning for the next pandemic. Rev Med Virol 11:59-70
	D18	Hayden, FG. 1996. Amantadine and rimantadine-mechanisms. In Antiviral drug resistance (ed. D. D. Richman), pp. 59-77. Chichester, UK: John Wiley & Sons Ltd

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EXAMINER INITIALS		CITATION
	D19	Hosoya M, Matsuyama S, Baba M, Susuki H and Shigeta S. 1992. Effects of protease inhibitors on replication of various myxoviruses. Antimicrobial Agents and Chemotherapy 36:1432-1436
	D20	Ito, T. 2000. Interspecies transmission and receptor recognition of influenza A virus. Microbiol Immunol 44(6):423-430
	D21	Janakiraman, MN, White, CL, Laver, WG, Air, GM and Luo, M. 1994. Structure of influenza virus neuraminidase B/lee/40 complexed with sialic acid and a dehydro analog at 1.8-A resolution: implications for the catalytic mechanism. Biochemistry 33:8172-8179
	D22	Kido, H, Niwa, Y, Beppu, Y and Towatari, T. 1996. Cellular proteases involved in the pathogenicity of enveloped animal viruses, human immunodeficiency virus, influenza virus A and sendai virus. Advan Enzyme Regul 36:325-347
	D23	Klenk, HD and Rott, R. 1988. The molecular biology of influenza virus pathogenicity. Adv Vir Res 34:247-281
	D24	Klenk, HD and Garten W. 1994. Host cell proteases controlling virus pathogenicity. Trend Micro 2:39-43
	D25	Kreisel, W, Volk, BA, Buchsel, R. and Reutter, W. 1980. Different half-lives of the carbohydrate and protein moieties of a 110,000-dalton glycoproteins isolated from plasma membranes of rat liver. Proc Natl Acad Sci USA 77:1828-1831
	D26	Krunkosky TM, Fischer BM, Martin LD, Jones N, Akley NJ and Adler KB. 2000. Effects of TNF- α on expression of ICAM-1 in human airway epithelial cells in vitro. Am J Respir Cell Mol Biol 22:685-692
	D27	Lazarowitz SG, Goldberg AR and Choppin PW. 1973. Proteolytic cleavage by plasmin of the HA polypeptide of influenza virus: host cell activation of serum plasminogen. Virology 56:172-180

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	D28	Lee, MK and Lander, AD. 1991. Analysis of affinity and structural selectivity in the binding of proteins to glycosaminoglycans: development of a sensitive electrophoretic approach. Pro Natl Acad Sci USA 88:2768-2772
	D29	Meltzer, MI, Cox, NJ and Fukuda, K. 1999. The economic impact of pandemic influenza in the United States: priorities for intervention. Emerg Infect Dis 5:659-671
	D30	Meyer, FA, King, M and Gelman, RA., 1975. On the role of sialic acid in the rheological properties of mucus. Biochimica et Biophysica Acta 392: 223-232
	D31	Milner, CM, Smith, SV, Carrillo MB, Taylor, GL, Hollinshead, M and Campbell, RD. 1997. Identification of a sialidase encoded in the human major histocompatibility complex. J Bio Chem 272:4549-4558
	D32	Monti, E, Preti, A, Venerando, B and Borsani, G. 2002. Recent development in mammalian sialidase molecular biology. Neurochem Res 27:646-663
	D33	Monti, E, Preti, A, Nesti, C, Ballabio, A and Borsani G. 1999. Expression of a novel human sialidase encoded by the NEU2 gene. Glycobiol 9:1313-1321
	D34	Monti, E, Bassi, MT, Papini, N, Riboni, M, Manzoni, M, Venerando, B, Croci, G, Preti, A, Ballabio, A, Tettamanti, G and Borsani, G. 2000. Identification and expression of NEU3, a novel human sialidase associated to the plasma membrane. Bichem J 349:343-351
	D35	Murakami M, Towatari T, Ohuchi M, Shiota M, Akao M, Okumura Y, Parry MA and Kido H. 2001. Mini-plasmin found in the epithelial cells of bronchioles triggers infection by broad-spectrum influenza A viruses and Sendai virus. Eur J Biochem 268: 2847-2855
	D36	Nakayama, K. 1997. Furin: a mammalian subtilisin/kex2p-like endoprotease involved in process of a wide variety of precursor proteins. Biochem 327:625-635

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
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